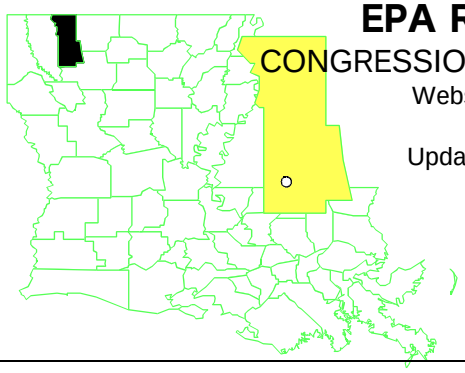
LOUISIANA ARMY AMMUNITION PLANT

LOUISIANA

EPA ID# LA0213820533



EPA REGION 6

CONGRESSIONAL DISTRICT 04

Webster Parish

Updated 6/4/97

Site Description

Location:

- 22 miles east of Shreveport on U.S. Highway 80, in Bossier and Webster Parishes.

Population:

- Approximately 10,250 people live in this predominantly agricultural area, within 2 miles of the site.

Setting:

- The closest drinking water well is a distance of 1,968 feet from the site boundaries.
- The installation covers 14,974 acres of level to slightly rolling forest land near the towns of Minden and Doyline. The HRS ranking was based on 16 one-acre leaching pits known as Area P.

Hydrology:

- The Terrace aquifer lies approximately 20 feet below land surface and is reportedly used for drinking water in surrounding areas. Water supplies on the facility are provided by the 300 foot sands of the Wilcox aquifer.
- Analytical tests performed to date show that no contamination of the area drinking water wells has occurred, and that contamination has not migrated from the shallow aquifers to the deeper aquifers.
- Migration of the waste appears to be retarded in the vertical direction by the Cane River Formation (CRF). The CRF forms a lower hydrogeologic boundary to the Terrace Aquifer and an upper confining unit for the Wilcox Aquifer across most of the installation.

- The updated Remedial Investigation, however, showed that the CRF pinches out west of Area P. This creates a situation where the upper Terrace deposits lay directly on top of the Wilcox formation. Thus, a possible hydrogeologic connection between the contaminated Terrace aquifer and deeper Wilcox aquifer does exist.
- The Army contends that a Corps of Engineers study shows that no real connection exists because the deeper aquifers of the Wilcox are overlain by substantial clay members of this same formation.

Wastes and Volumes

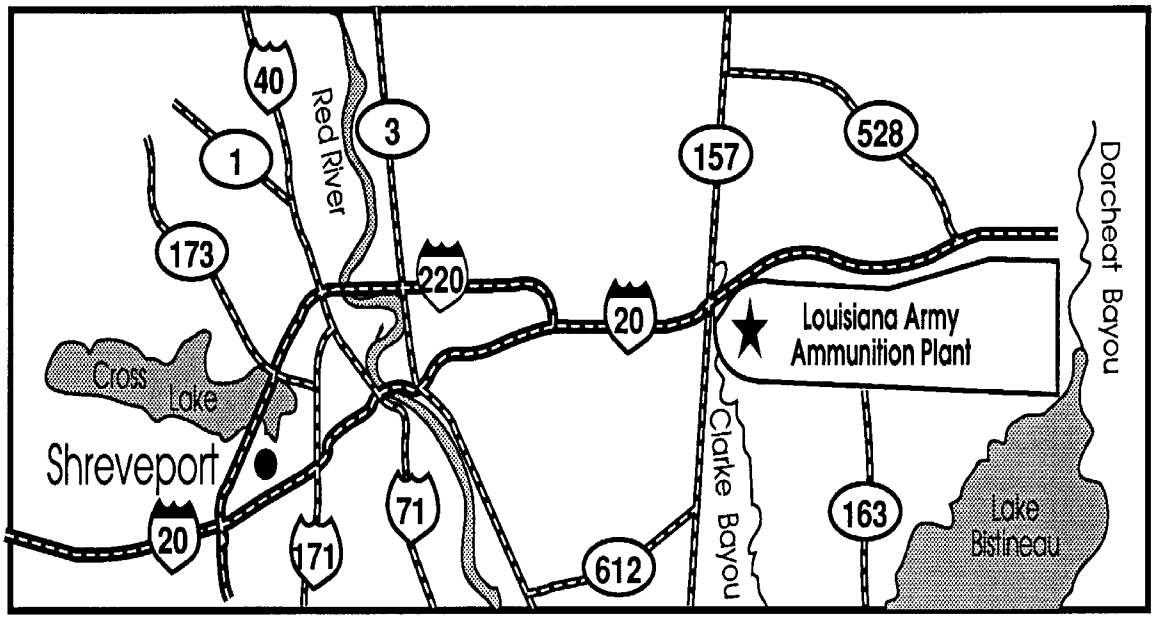
- The shallow ground water is contaminated by explosive wastes including the explosives, RDX up to 27,000 parts per million (ppm) and TNT up to 25,000 ppm.

- The Army incinerated 150,000 tons of contaminated soils and sludges from Area P. Contaminated soils from other operable units have been addressed in the Feasibility Study for the first 7 study areas.

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 30.60
Proposed Date: 10/15/84
Final Date: 3/31/89
NPL Update: No. 2

Site Map and Diagram



The Remediation Process

Site History:

- The plant began producing explosives in 1942. Several contractors have operated the facility. The current contractor is Thiokol Corporation.
- The Phase I investigation was completed by the Army in May 1978.
- The Phase II, Stage 1 investigation was completed in September 1982.
- Remedial Investigation (RI) for ground water was completed in January 1987.

- Remedial Investigation/Feasibility Study (RI/FS) for soil contamination in Area P was completed in August 1987.
- EPA and Army agreed on a schedule for completion of the ground water RI/FS in April 1989. An updated RI was completed in 1991 and the Feasibility Study (FS) for ground water was completed in 1993. It was determined that groundwater will be addressed for the whole site as a separate operable unit (OU).
- An Interim Response Action (IRA) which consisted of incineration of contaminated soils and sludges from Area P was completed in early April 1990. The initial IRA work plan required the Army to excavate the lagoons to a depth of five feet. If soil contamination in the lagoons was greater than 500 ppm of total nitro bodies, the Army would continue to excavate in one foot increments until the soil contamination was 500 ppm or less of total nitro. The excavated soils and sludges were incinerated on site with the resulting clean ash to be placed back into the lagoons.
- The original schedule submitted by the Army showed that the IRA would be completed in August of 1990. However, the Army informed the EPA that recent investigations showed that the contamination of Area P is not as extensive as originally stated. The Army formally requested on October 26, 1989, that the cleanup criteria be revised to reflect a smaller amount of soils and sludges to be excavated and incinerated. The EPA, in conjunction with the Louisiana Department of Environmental Quality, reviewed this request. EPA approved this change to the cleanup criteria on December 21, 1989. The new cleanup criteria required that the lagoon in Area P be excavated to 100 ppm total explosives. This averages a depth of excavation of two to three feet. The excavation and incineration at Area P was completed in April 1990. Capping of the lagoons in Area P was completed in October 1990. Operation and maintenance of the area is ongoing.
- RI & Risk Assessment approved on March 23, 1992, for seven areas. Ground water was put into a separate operable unit to include ground water from all 20 areas under consideration. Proposed plan completed in 11/95.
- A public meeting was held in January 1996.
- Draft RI submitted 11/94 for Y-Line.
- Draft RI/FS Workplan for 12 new areas submitted 12/94. Revised RI/FS work plan submitted in 3/95. Final RI/FS work plan in 11/95. Field work began in 11/95.
- The draft RI/FS for the Y-Line Chromium Etching Facility was submitted in June 1996.
- The Record of Decision (ROD) for the seven soil/source study areas was signed by the EPA Regional Administrator in March 1997.
- A document entitled "Data Evaluation Report for the Groundwater Operable Unit" was submitted to EPA for review in March 1997. According to the Army, the objectives of this report were to present a compilation of all previously gathered groundwater data, to present a conceptual model of the hydrogeologic model, to review available groundwater quality data and to identify data gaps and issues. The data gaps identified are to be incorporated as part of the groundwater RI workplan due July 1997.
- Final draft of the Follow-On Investigation of the Y-Line report was received in May 1997.

Health Considerations:

- Shallow contaminated aquifer is hydraulically connected with the deep Wilcox aquifer used by the facility as a potable water supply.

Other Environmental Risks:

- Some residents in the surrounding areas may use the shallow ground water for drinking.

Record of Decision

Signed: Interim Response Action - 01/31/89, Area P only. Approved with signatures on Federal Facility Agreement (FFA)

Signed: March 4, 1997, Soil/Source Operable Unit of Seven Study Areas only.

Remedy:

- Incineration of site wastes at Area P (responsibility of the U.S. Army)
- No further action for the seven soil/source study areas.

Community Involvement

- Community Involvement Plan: 07/88, revised 09/88 and 08/96.
- Community Involvement activities are the responsibility of the U.S. Army
- Milestone Fact Sheets: 02/90.
- Citizens on site mailing list: 76
- Constituency Interest: Unconcerned

- Site Repository: Webster Parish Public Library

Technical Assistance Grant

- Availability Notice: 03/24/89
- Letters of Intent Received: None
- Grant Award: N/A

- No apparent interest in a TAG at this site

Fiscal and Program Management

- **Remedial Project Manager(s):** Caroline Ziegler, 214-665-2178, EPA (6SF-LP)
- **State Contact:** Duane Wilson (LDEQ)
- **Community Involvement Coord.:** Verne McFarland, 214-665-6617, EPA (6SF-PO)
- **Attorney:** Mike Barra, 214-665-2143, EPA (6SF-DL)

- **State Coordinator:** Joe Massey, 214-665-7408, EPA (6SF-LT)
- **EPA Contractor:** none
- **Prime Contractor:** USACE/ESE/Woodward - Clyde/IT

Cost Recovery:

- PRPs Identified: ARMY

- Viable PRP: 1

- Enforcement Options: Continued oversight; Interagency Agreement; Yellow book procedure

Present Status and Issues

- A Draft RI/FS Report for 12 new load/assembly/pack and test areas is due for completion in June 1997.

Benefits

- The incineration of wastes and contaminated soils at the Louisiana Army Ammunition Plant site reduced the potential for exposure to hazardous substances for site workers and future reuse of the property. The Army is conducting investigations, which will lead to further reductions in contaminants, thereby further protecting the public health and the environment.